

Claims 1 and 19 each recite in part:

a control unit configured to selectively  
control said mechanical press in accordance  
with signals...

5 Applicant respectfully submits that such an invention is neither  
taught, disclosed, nor suggested by any of the cited references  
alone or in combination.

Canada et al. discloses a hand held data collector and  
10 analyzer system to collect vibration data from machines for use  
in predicting maintenance requirements. The Examiner contends,  
as per the Advisory Action, that Canada et al. teaches  
controlling the mechanical press in accordance from signals from  
the signal conditioner, as per column 4, lines 42-48. That  
15 section of Canada et al. discloses that control over an optional  
conditioning circuit is accomplished via an optional digital  
signal processor (DSP). Canada et al. further indicate that  
DSP's 180 and 212 operate independently and serially upon the  
incoming signal to receive, analyze, and store the data, all  
20 without interrupting the CPU 80. Specifically, both DSP's 180  
and 212 typically will perform Fast Fourier Transform  
calculations and then perform a rasterization function to  
graphically display the spectrum produced by the Fast Fourier  
Transform. Each DSP 180, 212 also identifies data that needs to  
25 be stored in accordance with instructions previously received  
from the CPU 80. As such, from an examination of the complete

disclosure of Canada et al., it can be seen that the control responsibility of the DSP's 180 and 212 are limited to data manipulation and do not extend to the control of the machine from which the data was gathered. Furthermore, Canada et al. do not  
5 disclose or suggest a data link for connecting the hand held data collector and analyzer system that would facilitate the transmission of a control signal back to the machine from which the data was initially collected. Furthermore, Canada et al. do not specifically disclose or suggest using such an hand held data  
10 collector and analyzer system in relation to a mechanical press. Therefore, Applicant respectfully submits that Canada et al. fails to teach or suggest the present invention as set forth in either of claims 1 and 19.

Kirii et al. discloses various methods of diagnosing a  
15 pressing machine for an abnormality on the machine or to check the machine if it is in order for assuring a product with intended quality. However, Kirii et al. do not disclose or suggest using signals created by such a diagnosis to control the operation of a press machine. Thus, Kirii fail to teach or  
20 suggest a control unit configured to selectively control the mechanical press in accordance with measurement signals, and thus, do not overcome the deficiency present in Canada et al.

Haseley et al. discloses a predictive vibration monitoring system including a microcontroller 20 capable of issuing a

command signal to a monitor machine if the analyzed vibration signature were to indicate an impending fault condition. Haseley et al. further disclose that the vibration monitoring system disclosed thereby may be installed as original equipment or, alternatively, as a retrofit assembly therein. As such, Haseley et al. do not disclose or suggest incorporating a vibration monitoring system as part of a handheld unit such as that disclosed by Canada et al.

Furthermore, Haseley et al., by being incorporated with the equipment being monitored, is designed to provide a signal directly to the monitored equipment. Haseley et al. do not disclose or suggest the provision of a datalink system (e.g., a modem) that would permit a command signal to be transferred to a monitored machine without a direct signal connection therebetween. Such a datalink mechanism would be required in Canada et al. if the microcontroller 20 of Haseley et al. were to be incorporated therein to allow transfer of a command signal thereby to the machine to be monitored.

A further issue with the possible combination of Canada et al. and Haseley et al. is the limitation placed upon Canada et al. that the handheld instrument thereof is subject to rather severe weight and size restraints imposed by the need to be handheld. The addition of a further microprocessor and an accompanying datalink mechanism would conflict with such weight

and size constraints. Thus, the inclusion of an additional microcontroller and datalink mechanism in the handheld data collector and analyzer system of Canada et al. would likely render the prior art invention of Canada et al. unsatisfactory for its intended purpose (i.e., being a handheld apparatus). As a result, there would be no suggestion or motivation to make such a proposed modification. *In re Gordon*, 733 F.2d 900 221 USPQ 1125 (Fed. Cir. 1984); MPEP § 2143.01.

For all of the foregoing reasons, Applicant respectfully submits that claims 1 and 19, and claims 2-18 and 20-28 dependent therefrom, are now in condition for allowance. Applicant hereby respectfully requests that the rejection based upon Canada et al. in view of Kirii et al. and Haseley et al. be withdrawn.

Claim 30 recites in part:

a controller being operatively coupled to said processor, said controller being configured to selectively control said press machine.

Applicant respectfully submits that such an invention is neither taught, disclosed, nor suggested by the cited references, alone or in combination, for essentially the same reasons set forth with respect to claims 1 and 19. Thus, Applicant respectfully submits that claim 30, and claims 31-35 depending therefrom, are now in condition for allowance. As such, Applicant respectfully requests the rejection thereof based upon the above combination of references be withdrawn.

Claim 36 recites in part:

a press machine controller operatively  
coupled to said press machine vibration  
measurement device.

5 Applicant respectfully submits that such an invention is neither  
taught, disclosed, nor suggested by the cited references, either  
alone or in combination, for essentially the same reasons set  
forth in respect to claims 1 and 19. Accordingly, Applicant  
10 submits that claim 36, and claims 37-39 depending therefrom, are  
now in condition for allowance and hereby respectfully requests  
that the rejection thereof based upon the above-referenced  
combination be withdrawn.

Claim 40 recites in part:

15 selectively controlling press machine  
operation in accordance with the vibration  
activity measurement.

20 Applicant respectfully submits that such an invention is neither  
taught, disclosed, nor suggested by the cited references, alone  
or in combination, for essentially the same reasons set forth  
with respect to claims 1 and 19. As such, Applicant respectfully  
submits that claim 40, and claims 41-43 depending therefrom, are  
now in condition for allowance and hereby respectfully requests  
25 that the rejection based upon the above-referenced combination be  
withdrawn.

Claim 8 has been rejected under 35 U.S.C. § 103(a), as being  
unpatentable over Canada et al. in view of Kirii et al. and

Haseley et al., and further in view of U.S. Patent No. 3,859,847 (Ronemus). However, claim 8 depends from claim 1, which is in condition for allowance for the reasons set forth above.

Accordingly, Applicant respectfully submits that claim 8 is also in condition for allowance and hereby respectfully requests the rejection thereof, based upon the above-referenced combination, be withdrawn.

Claims 9, 10, 20-22, and 29 have been rejected under 35 U.S.C. § 103(a), as being unpatentable over Canada et al. in view of Kirii et al. and Haseley et al., and further in view of U.S. Patent No. 5,802,151 (Bevill, Jr. et al.). Claims 9 and 10 depend from claim 1, while claims 20-22 depend from claim 19, with claims 1 and 19 being in condition for allowance for the reasons set forth above. Thus, Applicant respectfully submits that claims 9, 10, and 20-22 are in condition for allowance due to their dependency upon one of allowable claims 1 and 19. Applicant further submits that claim 29 is allowable on its own merits.

Claim 29 recites in part:

generating a unique press vibration  
severity/reliability zone chart; . . .

5            outputting the monitored vibration severity  
             and the corresponding vibration  
             severity/reliability zone . . .

Applicant respectfully submits that such an invention is neither  
10    taught, disclosed, nor suggested by any of the cited references,  
      alone or in combination.

Furthermore, claim 29 recites in part:

15           selectably controlling said mechanical press  
             in accordance with the monitored vibration  
             severity.

Applicant respectfully submits that such an invention is neither  
taught, disclosed, nor suggested by any of the cited references,  
alone or in combination. Specifically, the Canada et al., Kirii  
20    et al., and Haseley et al. references, alone or as a whole, do  
      not disclose or suggest such an invention for reasons set forth  
      with respect to the discussion of claims 1 and 19 above.

Furthermore, Bevill, Jr. et al. do not manage to overcome the  
shortcomings set forth with respect to the above combination of  
25    references.

Bevill, Jr. et al. disclose a telephone interface protection  
circuit and a modem incorporating the telephone interface  
protection circuit. As such, Bevill, Jr. et al. do not disclose  
or suggest the control of a mechanical press based upon monitored  
30    vibration severity.

Additionally, the primary reference, Canada et al., <sup>(si)</sup> directed to handheld data collector and analyzer systems that are used for vibration data collection for machines. As Canada et al., do not disclose the handheld instrument to have a telephone circuit, Canada et al. do not disclose any systematics problem to which Bevill, Jr. et al. could be directed. Thus, there is no motivation to combine Bevill, Jr. et al. with the primary reference, Canada et al.

For all of the foregoing reasons, Applicant respectfully submits that the supplied combination of references does not render claim 29 obvious and hereby respectfully requests that the rejection thereof, based upon the above-cited reference combination, be withdrawn.

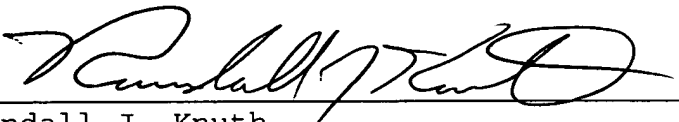
In the Advisory Action dated September 6, 2002, by the Examiner, there is no indication as to whether or not the amendment portion of Applicant's previous response had been entered. The amendments to claims 30, 33, 35, 36, and 37 therein were made solely as to overcome the claim objections raised by the Examiner in the first section of the Final Office Action. Applicant respectfully requests that this amendment be entered and that an indication of such entry be made by the Examiner as part of the next office action of communication.



Applicant respectfully requests that all rejections be withdrawn and that the Examiner forward a notice of allowability to the undersigned.

If the Examiner has any questions or comments that would speed prosecution of this case, the Examiner is invited to call the undersigned at 260/485-6001.

Respectfully submitted,

  
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231, on: September 19, 2002.

Randall J. Knuth, Regis. No. 34,644  
Name of Registered Representative

  
Signature  
September 19, 2002  
Date